

A second specimen of *Trapelus schmitzi* WAGNER & BÖHME 2007 (Sauria: Agamidae) and the first record from Algeria

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A second specimen of *Trapelus schmitzi* WAGNER & BÖHME 2007 (Sauria: Agamidae) and the first record from Algeria. - *Trapelus schmitzi* Wagner & Böhme, 2007 was described on the basis of a single specimen from the Ennedi Mountains, Chad. Herein the second known voucher is described and the first record of the species from Algeria is documented. A presumed distribution of the taxon is discussed according to the known distribution pattern of other reptile species, which occur in these regions.

Keywords: Agamidae - *Trapelus schmitzi* - Africa - Ennedi Mountains - Algeria - Tassili Mountains - Range extension - first record.

INTRODUCTION

The genus *Trapelus* was revalidated by Moody (1980) and since then a lot of work was done on the Asian taxa of the genus (e.g. Macey & Ananjeva, 2004; Rastegar-Pouyani, 1997; 1999; 2000; 2005) but studies on the African taxa are lacking. There is evidence that the North African taxa of the genus are partly not close related to Asian species (Wagner *et al.*, unpubl. data) and further work on this group will give insights in colonization events of northern Africa.

Recently, Wagner & Böhme (2007) described *Trapelus schmitzi* based on a single specimen. However, this new taxon differs clearly from the close related *Trapelus mutabilis* (Merrem, 1820) and *Trapelus pallidus* (Reuss, 1833) in having a homogenous dorsal scalation, lacking the typical intermixed larger scales on body and upper hind limb and in having a relatively short tail. All taxa of the genus are characterized by short and bulky heads and a small, deeply sunk tympanum with spiny scales above the ear opening.

T. mutabilis is widespread in northern Africa and probably represents the taxonomically most complicated taxon of the genus, comprising several cryptic species, which are currently studied by the senior author (Wagner & Böhme, 2007; Wagner, unpubl. data). As a first result of this study *Trapelus schmitzi* was described. The

apparent high variability of *T. mutabilis* is also reflected in the large number of synonyms (see Wermuth, 1967; Ulber & Barts, 2002). Its close related taxa, *T. schmitzi* and *T. pallidus* are both currently thought to have only a relatively small distribution area in Africa. The latter probably only occurs east of the Nile and is most probably the direct sister taxon of *T. mutabilis*, whereas *T. schmitzi* was so far only known from its type locality, the Ennedi Mountains in Chad.

While working on the agamid lizards in the collection of the Muséum d'histoire naturelle de la Ville de Genève (MHNG) a single voucher, labelled as *T. mutabilis*, was identified as the second known specimen of *Trapelus schmitzi* and the aim of this short note is to extend and discuss the distribution range of the species and to present more information on its morphological characteristics.

The herein presented voucher (MHNG 901.70) was collected by J. Juge in 1952 in the Tassili Mountains, Algeria.

The voucher was compared with the holotypes of *T. schmitzi* and *T. pallidus*, with the neotype of *T. mutabilis* (designated by Wagner *et al.*, subm.) and with the material listed in Wagner & Böhme (2007). Measurements and scale counts were done according to Grandison (1968) and Moody & Böhme (1984) and were taken with a dial calliper.

DESCRIPTION

Trapelus schmitzi (second known specimen; MHNG 901.70)

Fig. 1

Female; snout-vent length: 71 mm; tail length: 72 mm; head height: 13 mm; head length: 20 mm; head width: 17 mm.

Nostril on canthus rostralis, pierced in the posterior part of a large, flat nasal scale, directed obliquely upwards. Irregularly arranged smooth scales between nostrils. Supraoculars smooth. Parietal scale destroyed.

Scales on the head sometimes with sensory pits on their free anterior margins; scales originating on both sides of the head with imbrications anteriorly directed. Ear-opening small, tympanum sunk, not visible, about one third of the size of eye, its superior margin with three spiny, mucronate scales, one of them on each side with two spines. Rudimentary nuchal crest of three spiny, mucronate scales. Gular scales flat, smooth, slightly imbricate at their posterior margins, becoming somewhat smaller towards the gular fold. No gular pouch. Dorsal scales homogenous, in 91 scale rows around midbody, smooth to feebly keeled, partly mucronate, intermixed with few larger and feebly keeled, mucronate scales. Scales on tail keeled, not arranged in whorls. Tail cylindrical, only marginally longer than the snout-vent length. Ventral scales smooth. No preanal pores. Upper forelimbs with strongly keeled scales becoming feebly keeled beneath, homogenous in size. 4th finger longest, digital length decreasing 3-2-5-1, plantar scales and subdigital lamellae strongly keeled. Scales on hindlimbs feebly keeled and homogenous, becoming smooth beneath, on the femora as large as the dorsals, becoming slightly larger on the tibiae. 4th toe longest, digital length decreasing 3-2-5-1, hindlimb long, reaching the ear with the tip of the longest digit.

Colouration in alcohol: Dirty white above with a single dark band between the forelimbs, interrupted ventrally. Tail annulated by at least ten dark grey bands. Throat, belly and under parts of the tail whitish-grey.

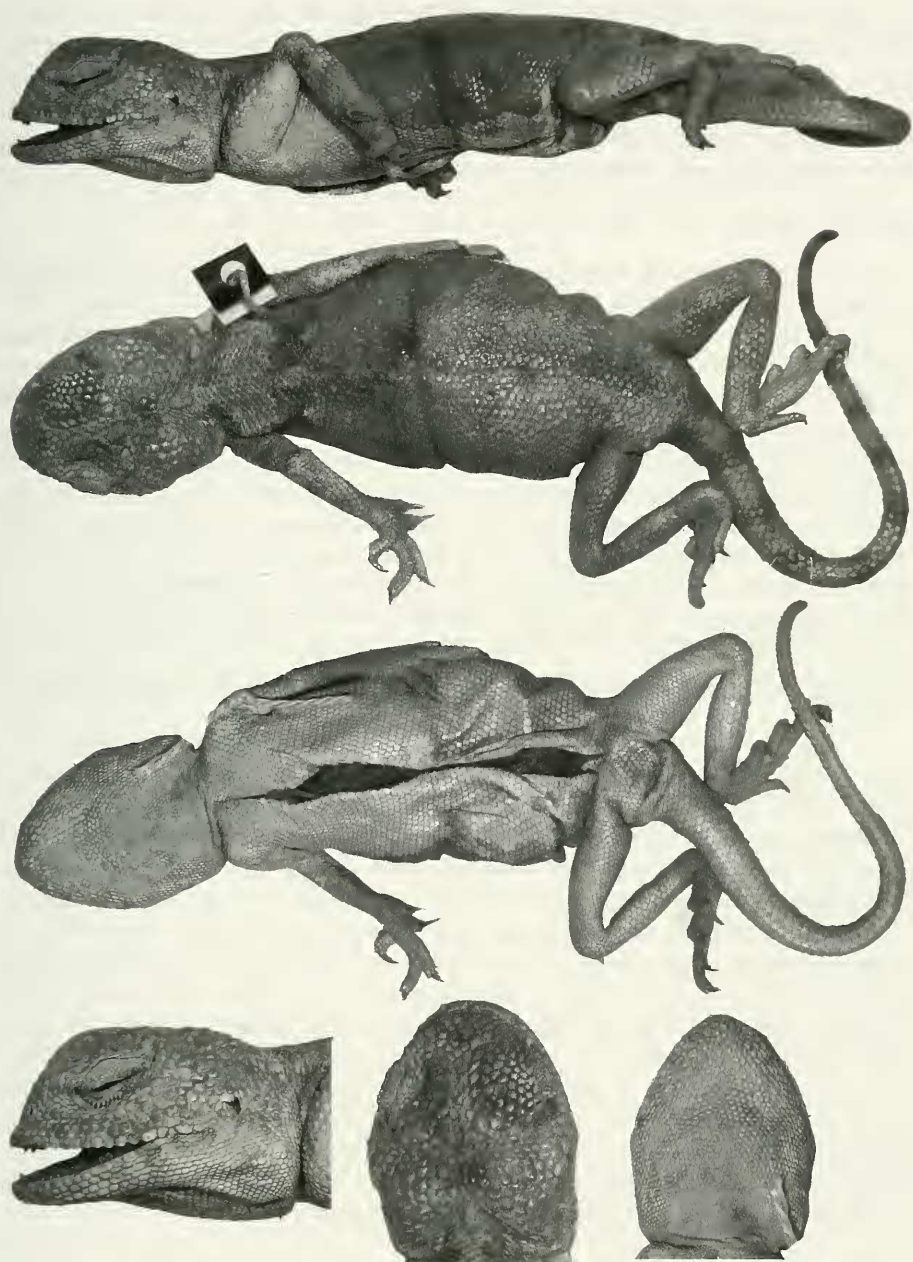


FIG. 1

MHNG 901.70: second known voucher of *Trapelus schmitzi* Böhme & Wagner, 2007

The voucher differs from the holotype in having three spiny scales above the ear instead of four in the holotype, but one scale on each side of the MHNG specimen shows two spines, so that four spines are visible, and it is obvious that two scales are fused. The colouration differs significantly from the holotype but already Wagner & Böhme (2007) mentioned that the original colouration of the holotype has been altered by the storage in alcohol or formalin.

DISTRIBUTION

This new record of *Trapelus schmitzi* was collected at Tassili (Tassili n'Ajjer), a 500 km long mountain chain in south eastern Algeria from 26° 20' N, 5° 00' E to 24° 00' N, 10° 00' O, near the Hoggar Mountains. The highest point is Djebel Afao with 2,158 m. The mountains consist of sandstone and thereby, because of the good water storing abilities of this stone, as well as the somewhat milder climate, the mountains have much more vegetation than the surrounding desert. Also *Cupressus dupreziana* (Cupressaceae) endemic to the Tassili, and *Myrtus nivellei* (Myrtaceae), endemic to the Tassili and Tibesti Mountains are present in higher elevations. The latter shows the strong biogeographical relationships between these mountain complexes. The Tassili Mountains are the westernmost part of the Ennedi-Tibesti-Tassili mountain complex which connects south-eastern Algeria with north-eastern Chad. Wagner & Böhme (2007) mentioned the type locality of *T. schmitzi* as the southern parts of the Ennedi Mountains near Guelta Archei. The Tibesti-Ennedi Mountain chain is connected by the Djado-Plateau with the Tassili Mountains, resulting in a continuous central Saharan highland.

Only little is known about distribution patterns of North African reptiles, especially the herpetofaunal relationships between the three mountainous areas Ennedi, Tibesti and Tassili are largely unknown. It is well established, that *Uromastix dispar dispar* Heyden, 1827 (Sauria: Agamidae) occurs in Sudan as well as in the Ennedi and Tibesti Mountains (Wilms, 2005). *Uromastix alfredschmidtii* inhabits the Tassili Mountains. Although this species is not the direct sister taxon of *U. dispar* it belongs to the same phylogenetic group within the genus (*U. acanthinura* group) and therefore reflects a zoogeographical relation between both areas (Wilms, 2005). Another example is *Telescopus dhara obtusus* (Reuss, 1834) (Serpentes: Colubridae), which is distributed in Africa in the north-east and along the central-Saharan mountains (Tibesti, Ennedi, Air) and which is replaced in the lowlands by *Telescopus tripolitanus* (Werner, 1909).

This new record of *Trapelus schmitzi* and second known voucher documents the occurrence of the taxon in the mountainous area of Tassili n'Ajjer and extends the distribution of the species to an area ranging from eastern Chad to eastern Algeria. Because of distribution similarities mentioned above we predict an occurrence also in the Tibesti Mountains, in Niger and eastwards probably to Sudan.

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